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KENTUCKY AUTISM  
TRAINING CENTER 

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Autism 101

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The slides for this presentation were developed by the Kentucky Autism Training Center (KATC).

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# Learning Agenda

- What is Autism?
  - Red Flags
  - Review Strategies and Resources
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# What do you think autism is?



## **What is Autism?**

Autism is a lifelong developmental disability, resulting from a neurological disorder that affects the brain functioning.

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# Prevalence of Individuals with ASD

**1 in 68**

March 2014 CDC report

# Demographics

- Knows no racial, ethnic, or social boundaries
- Five times more prevalent in boys (1 in 42) than girls (1 in 189)
- Usually affects sensory and motor processing systems of the brain
- Varying degrees of severity in different individuals

# Autism is not a disorder



DD-NOS

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# Autism Spectrum Disorder in the DSM-5

## *Five major changes*

#1 New classification system eliminates the previously separate subcategories on the autism spectrum, including Asperger syndrome, PDD-NOS, childhood disintegrative disorder and autistic disorder. **These subcategories will be folded into the broad term autism spectrum disorder (ASD).**

# Autism Speaks: *Five major changes*

## #2

	DSM-IV	DSM-V
Domains/ Categories	Three domains: <ul style="list-style-type: none"><li>• Social Impairment</li><li>• Language/ Communication Impairment</li><li>• Repetitive/restricted/ stereotyped behaviors</li></ul>	Two Categories: <ul style="list-style-type: none"><li>• Social Communication Impairment</li><li>• Restricted interests/repetitive behaviors</li></ul>
Diagnosis Requirements	At least 6 out of 12 deficits in the three domain areas	<ul style="list-style-type: none"><li>• 3 deficits in social communication</li><li>• At least 2 symptoms in Restricted Repetitive Patterns of Behavior/Interests<ul style="list-style-type: none"><li>• <b><u>New symptom:</u></b> Hyper- or hypo-reactivity to sensory input or unusual interests in sensory aspects of the environment</li></ul></li></ul>

#3 Symptoms can currently be present, or reported in past history.

#4 In addition to the diagnosis, each person evaluated will also be described in terms of:

- Any known genetic cause (e.g., fragile X syndrome, Rett syndrome)
- Level of language
- Intellectual disability
- Presence of medical conditions such as seizures, anxiety, depression, and/or gastrointestinal (GI) problems

#5 The work group added a new category called Social Communication Disorder (SCD). This will allow for a diagnosis of disabilities in social communication without the presence of repetitive behaviors.

A. Persistent deficits in social communication and social interaction across multiple contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

- Deficits in social-emotional reciprocity
- Deficits in nonverbal communicative behaviors used for social interaction
- Deficits in developing, maintaining, and understanding relationships

B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least 2 of the following:

- Stereotyped or repetitive motor movements, use of objects, or speech
- Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior
- Highly restricted, fixated interests that are abnormal in intensity or focus
- Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment

Dimensional Ratings for DSM V ASD	Social Communication	Fixated Interests and Repetitive Behaviors
Requires very substantial support	Severe deficits in verbal and nonverbal. Very limited initiation of social interactions and minimal response to overtures.	Inflexibility of behavior, extreme difficulty coping with change, RRBs that markedly interfere in all spheres. Great Distress
Requires substantial support	Marked deficits with limited initiations and reduced or atypical responses. Impairment apparent even with supports in place.	Inflexible in behavior, difficulty coping with change, frequent RRBs and interfere in a variety of contexts. Some distress.
Requires support	With or without supports, noticeable impairments. Difficulty initiating social interactions and clear atypical responses. Maybe decrease social interest.	Behavioral inflexibility causes significant interference in one or more contexts. Trouble switching. Problems organizing and planning.



Autism affects how an  
individual thinks,  
communicates, and  
interacts with others

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# Autism is **NOT**...

- A mental illness
- The result of bad parenting
- Unruly individuals who choose not to behave
- Always associated with mental impairment
- Always associated with behavioral challenges
- The same in every child

# Children do not “outgrow” autism, but...

Studies do show that early diagnosis and intervention lead to significantly improved outcomes.

(IDEA for Partnerships)

## Early Signs

The characteristic behaviors of autism may or may not be obvious in infancy (12 to 18 months) but usually become more apparent during early childhood (16 months to 6 years)

# Red Flags

- Developmental Milestones
  - <http://www.cdc.gov/actearly>
  - <http://firstwords.fsu.edu/>

# Red Flags

- What to look for?
  - Communication/Language Skills
  - Social Interaction
  - Repetitive Behaviors & Restricted Interests

# Red Flags

- Impairment in Communication:
  - Lack of showing gestures
  - Lack of coordination of nonverbal communication
  - Unusual prosody (little variation in pitch, odd intonation, irregular rhythm, unusual voice quality)
  - Delayed speech and language skills

(First Signs Red Flags, 2010)

# Red Flags

- Impairment in Social Interaction:
  - Does not participate in or enjoy pretend play
  - Poor joint attention
  - Poor response to social bids
  - Lack of appropriate eye gaze
  - Lack of warm, joyful expressions
  - Lack of sharing interest or enjoyment
  - Lack of response to name

(First Signs Red Flags, 2010)



# Red Flags

- Repetitive Behaviors and Restricted Interests:
  - Repetitive movements with objects
  - Repetitive movements or posturing of body, arms, hands or fingers
  - Likes parts of objects
  - Has to follow certain routines
  - Flaps hands, rocks body, or spins self in circles

(First Signs Red Flags, 2010)

# Red Flags for Autism

- Child does not babble or coo by 12 months
- Child does not gesture (point, wave, grab) by 12 months
- Child does not say single words by 16 months
- Child does not use 2 word phrases on his own by 24 months
- Child may lose language or social skills after having acquired them

# Additional Resources

- National Dissemination Center for Children with Disabilities
  - <http://nichcy.org/>
- First Signs
  - [www.firstsigns.org](http://www.firstsigns.org)
- Centers for Disease Control “Baby Steps: Learn the Signs. Act Early”
  - <http://www.cdc.gov/ncbddd/actearly/index.html>

# Early identification is key

If a parent is concerned about a child's development, it is important that the parent talk to the child's pediatrician. The pediatrician may be able to refer the child for further evaluation.

If the pediatrician does not share the parent's concerns, the parent should consider seeking a second opinion from a professional who specializes in ASD.

# Sharing Concerns...

- Use sensitivity and choose words wisely
- Remain objective
- Highlight strengths as well as deficits
- Consider cultural sensitivities

# Sharing Concerns...

- CDC – Tips for talking with Parents
  - [http://www.cdc.gov/ncbddd/actearly/pdf/parents\\_pdfs/tipstalkingparents.pdf](http://www.cdc.gov/ncbddd/actearly/pdf/parents_pdfs/tipstalkingparents.pdf)
- Autism Speaks Talking to Parents about Autism Kit
  - <http://www.autismspeaks.org/what-autism/learn-signs/talking-parents-about-autism-action-kit>

# First Steps

If the child is under the age of 3,  
encourage the parent to contact

First Steps

1-877-417-8377

## **If the child is over age 3**

If the child is in preschool or elementary school, encourage the parents to talk to the child's teacher about any concerns



## Where to turn for evaluation

- The parent should be encouraged to talk to the child's pediatrician/primary care physician with concerns about the child's development. The physician should be able to refer the parent for further evaluation.
- If the physician does not share the parent's concerns, encourage the parent to seek a second opinion from a professional who specializes in ASD.

## **The evaluation process**

- There are specific parameters for the diagnosis of ASD with two levels of assessment:
  - The first level is screening
  - The second level, for those who fail the screening, involves a multidisciplinary assessment by a variety of clinicians with experience in working with individuals with ASD

# What is “multidisciplinary”?

- A team of professionals from various backgrounds which may include any of the following:
  - Developmental pediatrician
  - Child psychiatrist
  - Clinical psychologist
  - Occupational therapist
  - Physical therapist
  - Speech/language pathologist
  - Social worker

Let's talk about some of the  
common challenges experienced by  
individuals with autism

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# Triad of characteristics

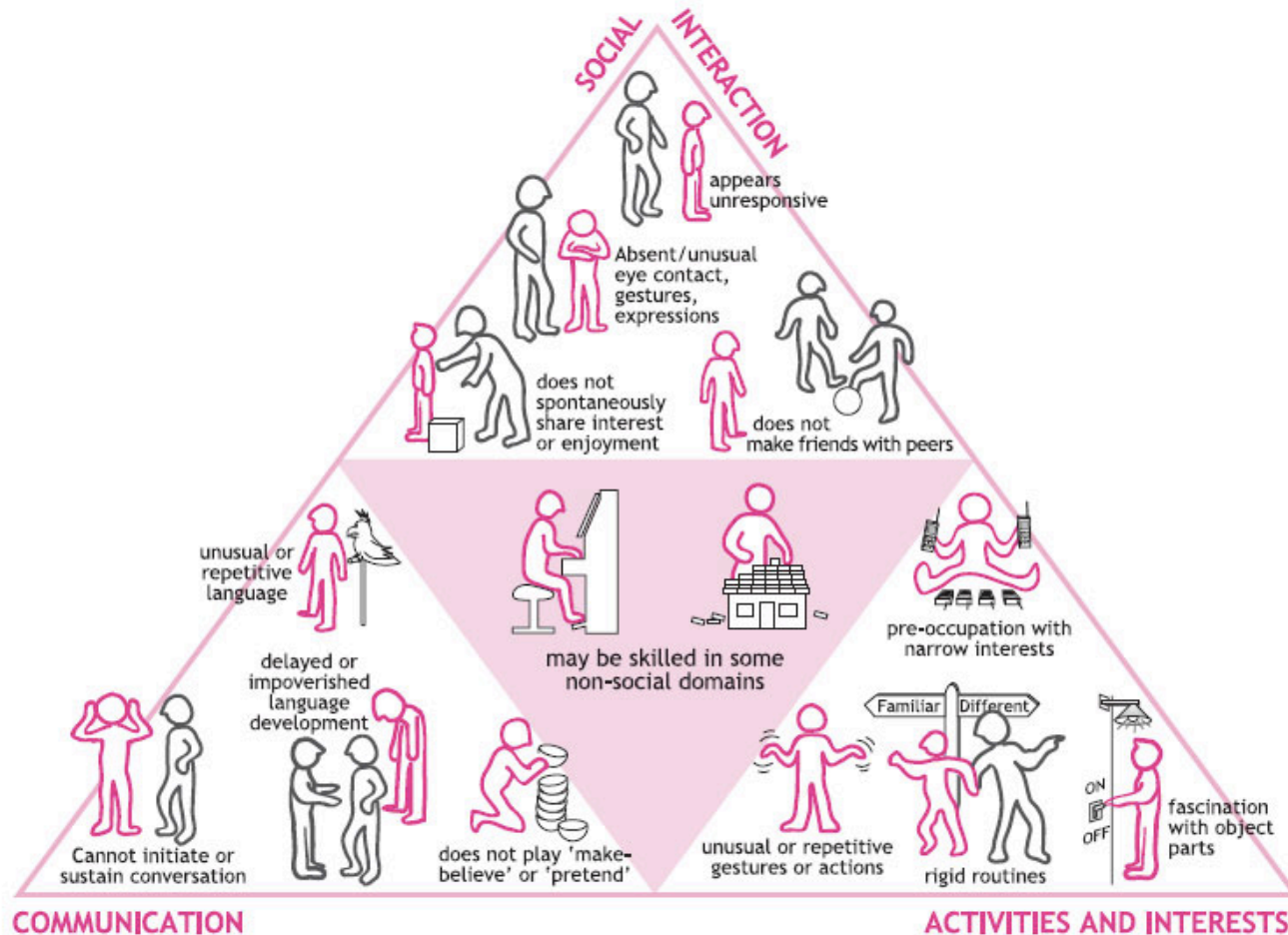


Figure 1: The triad of impairments in ASDs

National Autistic Society

# Over-selectivity

- Individuals with ASD may attend to a limited number of cues in their environment

(Lovaas, Schreibman, Koegel & Rehm, 1971)

# Pre-linguistic skills

- Joint attention
- Turn taking
- Anticipating a routine
- Eye contact
- Imitation skills

# Communication

- Functional communication
- Idiosyncratic language
  - Child says “I want popcorn” to indicate he wants to go to the movies
- Literal understanding of language
  - Sit down
  - Ants in your pants
  - Raining cats and dogs



# Communication

- May demonstrate difficulties with
  - Verb tense and articles
  - Pronoun reversal
    - “You want cookie”
  - Prosody
    - Unnatural tone in voice



# Communication

- *Non-verbal communication*
-

# Pragmatic issues

- Many individuals with ASD demonstrate
  - A lack of spontaneity
  - Decreased ability to recognize a speaker's intent
  - Decreased ability to reciprocate during conversation
  - Decreased ability to respond with the appropriate amount of information

(Scheuermann & Webber, 2002)

# Theory of Mind

- The ability to make inferences about what other people believe to be true
  - Perspective taking
  - Difficulty anticipating what others will say or do in various situations

## **Stereotyped or repetitive behaviors**

- Individuals with ASD may present a limited range of interests and insist on interacting around preferred topics
  - Young man wants only to talk to his peers about their experience with narrow gauge steam engines

## **Stereotyped or repetitive behaviors**

- Individuals with ASD may engage in behaviors that are automatically reinforced
  - Hand flapping
  - Video talk
  - Spinning part of toys

# Self Stimulatory Behaviors

Repetitive body movements or repetitive movement of objects to process sensory information

- Hand flapping
- Humming
- Clapping
- Rocking
- Manipulating an object
- Jumping up and down

# Sensory Differences

- Some individuals may over respond or under respond to sensory stimuli
  - As a result certain things in the environment might be exceptionally reinforcing or aversive to some individuals with ASD



# Self Regulation

- Individuals with ASD may have challenges in recognizing and changing their own emotional states
- Instruction in recognizing feelings in self and strategies to self-calm can create the desire to self-manage

# Problem Solving

- Areas related to self-determination are often challenges for individuals with ASD
  - Problem-solving
  - Decision-making

## NOW WHAT???

- ✓ National Professional Development Center on Autism Spectrum Disorders

<http://autismpdc.fpg.unc.edu/>

- ✓ AIM (Autism Internet Modules)

<http://www.autisminternetmodules.org>

- ✓ Kentucky Autism Training Center

[www.kyautism.org](http://www.kyautism.org)

## *Evidence Based Practices*

- Antecedent based intervention
- Cognitive Behavioral intervention
- Differential reinforcement
- Discrete trial training
- Exercise
- Extinction
- Functional behavior assessment
- Functional communication training
- Modeling
- Naturalistic interventions
- Parent-implemented intervention
- Peer-mediated instruction/intervention
- Picture Exchange Communication System (PECS)
- Pivotal Response Training (PRT)
- Prompting
- Reinforcement
- Response interruption/redirection
- Scripting
- Self-management
- Social narratives
- Social skills training groups
- Structured play groups
- Speech generating devices/VOCA
- Structured Play Groups
- Task analysis
- Technology-Aided Instruction and Intervention
- Time delay
- Video modeling
- Visual supports

# **In what areas/time of day can you use these strategies?**

- Most, if not all areas
- Throughout the course of the day
- BE CONSISTENT

**REMEMBER: If you have met one person with autism,  
You've met one person with autism.**

Make sure the behavior is....

- ✓ relevant (looks normal)
- ✓ reasonable (can be done by the individual)
- ✓ reinforced (can be observed by DSP)

## **REINFORCEMENT IS KEY**

**Remember: what works today may not work tomorrow! Likewise what didn't work yesterday, may work today!!!**

# FREE SOURCES FOR THE AUTISM COMMUNITY IN KENTUCKY

## UNIVERSITY OF LOUISVILLE

KENTUCKY AUTISM  
TRAINING CENTER

The mission of the Kentucky Autism Training Center is to strengthen our state's systems of support for persons affected by autism by bridging research to practice and by providing training and resources to families and professionals. KATC is committed to improving the quality of life for those affected by ASD.

### NEED HELP?

Looking for resources  
and information?  
Contact the KATC:

502.852.4631  
katc@louisville.edu

[louisville.edu/education/  
kyautismtraining](http://louisville.edu/education/kyautismtraining)



Website



Kentucky Services and  
Supports Directory



Kentucky's Family Guide to  
Autism Spectrum Disorders



Community Awareness  
Brochures



Amanda L. King  
Resource Library



Webinars



Newsletter



Resources for Families,  
Educators and Service  
Providers



Training



Learn the Signs, Act Early  
Kentucky



Social Media  
*Facebook, Twitter, YouTube*



Listserv



National Professional Development Center  
on Autism Spectrum Disorders



Academic and Behavioral Response  
to Intervention



Autism Internet Modules

## Questions?

Contact info:

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(502) 852-6401

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## Center contact info:

Telephone: (502) 852-2467 or  
800-334-8635 ext. 852-4631

Fax: (502) 852-7148

E-mail: [katc@louisville.edu](mailto:katc@louisville.edu)

<https://louisville.edu/education/kyautismtraining>





### **Books Available for loan from Amanda L. King Resource Library**

- Bruey, C. (2004). *Demystifying autism spectrum disorders: A guide to diagnosis for parents and professionals*. Bethesda, MD: Woodbine House.
- Janzen, J. (2002). *Understanding the nature of autism: A guide to the autism spectrum disorders*. San Antonio, TX: Pearson Assessments.
- Marshak, L, & Pollock Prezant, F. (2007). *Married with special-needs children: A couple's guide to keeping connected*. Bethesda, MD: Woodbine House.
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- O'Brien, M., & Daggett, J. (2006). *Beyond the autism diagnosis: A professional's guide to helping families*. Baltimore, MD: Brooks Publishing.
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<http://ideapartnership.org/assessment-consortia-reach-out-through-the-partners/427-partner-spotlight/1493-autism-spectrum-disorders-asd.html?highlight=WyJhdXRpc20iXQ==>
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